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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,183	03/05/2002	William B. Henry	30GF-1110	7497

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EXAMINER	
RO, BENTSU	
ART UNIT	PAPER NUMBER
2837	

DATE MAILED: 08/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/092,183	HENRY, WILLIAM B.	
	Examiner	Art Unit	
	Bentsu Ro	2837	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-8,10-20,22 and 23* is/are rejected.

7)☒ Claim(s) *4,9,21 and 24* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

FIRST OFFICE ACTION

1. Drawing correction is required as follows:

In drawings Figs. 1 and 2, applicant should label the function of each box, for example, in Fig. 1 label box 14 as "controller", box 12 as "amplifier", box 16 as "actuator", etc.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 5-8, 10-20, 22, 23 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Johansson et al US Patent No. 5,986,539.

Claims read onto Johansson et al teaching as follows:

The claims:	**Johansson et al teaching:**
Claim 1. A servomechanism comprising:	Fig. 1 shows a motor 32; column 3, line 62 describes that the motor 32 can be a DC servo motor;
an actuator configured to convert electrical energy into mechanical energy;	the servo motor 32;
a controller configured for electrical connection to a power source;	Fig. 1 shows a master 12 which can be read as a controller; alternatively, Fig. 1 also shows a controller 22;
a power cable electrically connecting said actuator and said controller,	Fig. 1 shows a coaxial cable 16;
said power cable configured to transmit electrical current from said controller to said actuator; and	see abstract lines 1-4;

at least one transducer coupled to said actuator,	Fig. 1 shows an encoder 34;
said transducer electrically connected to said power cable and configured to transmit data over said power cable.	Fig. 1 shows the connection of encoder 34 to the coaxial cable 16 via a driver interface 28; see abstract lines 4-6.
Claim 2. A servomechanism in accordance with claim 1 wherein said actuator comprises an electric motor.	Fig. 1 shows motor 32.
Claim 3. A servomechanism in accordance with claim 1 wherein said actuator comprises a resistance configured to convert electrical energy into heat.	Fig. 2 shows that the load 52 can be a resistive element; any resistive element will convert electrical energy into thermal energy (heat).
Claim 5. A servomechanism in accordance with claim 1 further comprising:	
a data modulator electrically connected to said at least one transducer and said power cable;	Fig. 2 shows a transmitter 68 which is a data modulator; the transducer or encoder 34 connects to the transmitter 68 via the inputs of the multiplexer/demultiplexer 76; the transmitter 68 connects to the coaxial cable 46, 48 via a communication transmitter isolation transformer 60;
a data recoverer electrically connected to said controller and said power cable;	Fig. 2 shows a multiplexer/demultiplexer 76 which is a data recoverer; the multiplexer/demultiplexer 76 connects to the controller via the coaxial cable, the isolation transformers, the transmitter 68 and the receiver 72;
said data modulator configured to transmit data from said at least one transducer over said power cable; and	see the description in column 3, lines 64-67;

said data recoverer configured to reconstitute data transmitted from said data modulator into a proper form for transmission to said controller.	the operation of multiplexing/demultiplexing is a type of data reconstitution; after reconstitution, the data is transmitted to the controller via the transmitter 68 and the isolation transformer 60; see the operation in column 3, lines 57-67.
Claim 6. A servomechanism in accordance with claim 5 wherein said data recoverer configured to transmit data directly to said controller.	Depending on how one interprets the word "directly"; the word "directly" can be interpreted as "transmits the data solely to the destination device in a single path without diverting to other devices"; in that sense, claim 6 reads onto Johansson's teaching because the multiplexer/demultiplexer 76 transmits the data solely to the controller without diverting to other devices.
Claims 7, 8, 10. A servomechanism in accordance with claim 5 wherein said data modulator coupled to an external surface of said actuator.	Albeit not clearly shown, all elements in the slave 14 (see Fig. 1) must be positioned external to the motor 32, including the transmitter 68 and the multiplexer/demultiplexer 76.
Claim 11. A servomechanism in accordance with claim 1 wherein said at least one transducer positioned within an external surface of said actuator.	Fig. 1 shows the encoder 34 positioned onto the external surface of the motor 32.
Claims 12 and 13. A servomechanism in accordance with claim 1 wherein the data comprises analog (or digital) data.	Column 4, line 25 clearly states "analog and digital inputs".

Claims 14-18 are second group claims; claims 19 and 20 are third group claims; and claim 22, 23 are fourth group claims; all these claims are similar to that of the first group claims (1-3, 5-8, 10-13), explanation is therefore omitted.

4. Claims 4, 9, 21, 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

6. Any inquiry concerning this communication should be directed to Bentsu Ro at telephone number 703 308-3656.

August 18, 2003

Bentsu Ro
Primary Examiner